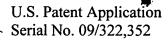


Marked-Up Copy of Claims Amended in the Amendment Corresponding to the Office Action Dated 11 December 2001

- 1. (Twice Amended) A method of obtaining a cell population enriched for long-term repopulating human hematopoietic stem cells (HSCs), the method comprising isolating hematopoietic cells from a human hematopoietic tissue and separating cells that express KDR on their surface (KDR⁺ cells) from cells that do not express KDR on their surface using a reagent that specifically binds with KDR, thereby obtaining a KDR⁺ cell population that is enriched for long-term repopulating HSCs.
- 7. (Twice Amended) The method of claim-6_1, wherein the reagent is an antibody.
- 18. (Twice Amended) A method of preparing long-term repopulating human HSCs, the method comprising isolating hematopoietic progenitor cells (HPCs) that express KDR on their surface (KDR⁺ HPCs) from a human hematopoietic tissue and separating HPCs that express KDR on their surface (KDR⁺ HPCs) from HPCs that do not express KDR on their surface using a reagent that specifically binds with KDR, whereby the isolated KDR⁺ HPCs are enriched for long-term repopulating HSCs.
- 23. (Twice Amended) The method of claim 18, wherein the further comprising isolating KDR⁺ HPCs are isolated from the tissue using a method selected from the group consisting of isolating cells that express an early marker using an antibody specific for the early marker and isolating cells that do not express a late marker on their surface using an antibody specific for the late marker.
- 24. (Twice Amended) The method of claim 18, wherein the HPCs are isolated from the tissue using an antibody that is specific for an early marker-selected from the group





consisting of CD34, Thy-1, c-kit receptor, flt3 receptor, AC133, vascular endothelial growth factor receptor II, vascular endothelial growth factor receptor III, Tie1, Tek, and basic fibroblast growth factor receptor.

- 25. (Twice Amended) The method of claim 18, wherein-further comprising isolating the HPCs are isolated long-term repopulating HSCs from other HPCs using an antibody that is specific for a known lineage (lin) one of an early marker and a late marker.
- 26. (Twice Amended) The method of claim-24_76, wherein the early marker is CD34.
- 51. (Twice Amended) A method of expanding long-term repopulating human HSCs, the method comprising isolating HSCs that express KDR on their surface (KDR⁺ HSCs) from a human hematopoietic tissue <u>using a reagent that specifically binds with KDR</u> and incubating the HSCs with vascular endothelial growth factor to expand the HSCs.
- 69. (Twice Amended) A method of isolating a stem cell capable of giving rise to at least one of a muscle cell, a hepatic oval cell, a bone cell, a cartilage cell, a fat cell, a tendon cell, and a marrow stroma cell, the method comprising isolating a hematopoietic cell that expresses KDR on its surface from a human hematopoietic tissue using a reagent that specifically binds with KDR, thereby isolating the stem cell.

